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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,023	01/26/2004	Richard M. Podhajny	525.1023-CIP	1299

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EXAMINER
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MERCIER, MELISSA S

ART UNIT	PAPER NUMBER
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1615

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/19/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/765,023

Applicant(s)

PODHAIJNY, RICHARD M.

Examiner

Melissa S. Mercier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 February 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 4-23-04.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Receipt of Applicants Remarks filed on February 7, 2007 is acknowledged. The examiner has fully considered applicants arguments and after further consideration has found them persuasive. Therefore, **the restriction requirement of claims 1-30 has been withdrawn.**

### ***Priority***

Applicants claim of priority as a CIP of application 10/003799 filed on November 2, 2001 is acknowledged.

### ***Information Disclosure Statement***

Receipt of the Information Disclosure Statement filed on April 23, 2004 is acknowledged.

### ***Claim Objections***

Claim 10 objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 9, from which claim 10 depends carries all the limitations of claim 1, which already limits the acid number of the polymer to less than about 200.

Claim 5 is objected to as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 5 recites the limitation "the pH is less

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than about 9.7", indicating the pH could be, for example, 7. Claim 4, from which 18 depends has set the limitation of pH having a lower limit of 9. It is suggested that applicant amend the claims to include an upper and lower limit.

Claim 18 is objected to as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 18 recites the limitation "a pore size of at least about 4 Angstroms", indicating the pore size could include, for example 10 Angstroms. Claim 1, from which 18 depends has set the limitation of pore size to the range of 3 to 5 Angstroms. It is suggested that applicant amend the claims to include an upper and lower limit.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-2, 7-12, 16-19, 21-23, and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niira et al. (US Patent 4,938,958).

Niira. discloses an antimicrobial zeolite composition and resin comprising said composition. The composition comprises a thermoplastic or thermosetting resin such as polyethylene, polystyrene, polyvinyl chloride, and acrylic resins (column 4, lines 24 - 33). The zeolite composition can be comprised of various metal ions including silver, copper, zinc, mercury, tin, lead bismuth, cadmium, chromium, and thallium (column 2, lines 35-41). The resin is prepared either by incorporating the zeolite composition within the resin or coating it on the surface of the plastics, and is present in the coating in a concentration from 0.1 to 3% wt (column 4, lines 34-45). Niira further discloses it can be incorporated into and applied in the papermaking arts including paper packaging (column 5, lines 4 - 20). Also, as well known in the art, as seen in example 1, which discloses 11 kinds of zeolites which vary in particle size from 0.7 - 5 microns depending on which particular type are being used (column 5, lines 25 - 39).

With regard to the pore size of the zeolite it is the position of the examiner that such limitations so not impart patentability over the prior art. Applicant has expressed in the specification that the limitations such as particle size and pore size are merely the preferred embodiments, and are hence non-critical to the overall patentability of the invention. When taken into consideration that both Niira references achieves the same goal of a coated polymer resin with antimicrobial qualities, the particular limitations such as particle size, and pore size are non-critical and would be obvious to a skilled artisan.

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Barring a showing of unexpected results regarding the pore size of the claimed invention, the claimed invention cannot be deemed patentably distinct over the prior art.

With regard to the orientation of the coating layer (discontinuous, continuous), it is the position of the examiner that the limitation is non-critical to the patentability of the invention. It is also the position of the examiner that the orientation of the layer (discontinuous or continuous) would be well within the level of ordinary skill in the art to adjust. It would be obvious to a skilled artisan to apply the layer in whichever pattern best suited the application of the packaging material. These two limitation can be achieved through routine experimentation, and modification by those of ordinary skill in the art.

With regard to claim 22-23 that the method of printing is preformed by a particular method, these claims are deemed a product-by-process claim and do not distinguish the claim from the prior art. The prior art provides a composition with identical components, although produced by a different process; the burden is shifted to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. See *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983).

Applicant is reminded that where the general conditions of the claims are met, burden is shifted to applicant to provide a patentable distinction. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. See *In re Aller*, 220 F.2d 454 105 USPQ 233,235 (CCPA 1955).

Claims 3-6, 14-15, and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Niira et al. (US Patent 4,938,958) "US'958", in view of Niira et al. (US Patent 5,556,699) "US'699".

The teachings of "US'958" are discussed above and applied in the same manner.

US958 does not disclose the thickness of the zeolite coating on the substrate.

US'699 discloses an antimicrobial zeolite coating film. The film can be incorporated into or on, resins and polymers such as polyester (column 4, lines 24 - 44). US'699 discloses admixing the antibiotic zeolite and an organic polymeric compound can produce the antibiotic films. The resin flakes can be dissolved in water or in an organic solvent (column 4, lines 45-58). The coating film can be as thick as 3 - 6 microns when applied to the surface of a substrate (col. 4, line. 59 - 65). The coatings can be used in food packaging materials (Abstract).

It would have been obvious to a person of ordinary skill in the art to combine the teachings of US'958 and US'699 in order to make an antibiotic zeolite-containing film having a relatively low content of antibiotic zeolite which exhibits a satisfactory antibiotic action and transparency compatible to that of conventional antibiotic films (column 1, lines 9-54). Additionally, Applicant is reminded that where the general conditions of the claims are met, burden is shifted to applicant to provide a patentable distinction. Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. See *In re Aller*, 220 F.2d 454, 105 USPQ 233,235 (CCPA 1955).

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Niira et al. (US Patent 4,938,958) in view of Neumann (US Patent 4,322,929).

The teachings of Niira are disclosed above and applied in the same manner.

Niira does not disclose the use of nitrocellulose.

Neumann discloses a method of applying a coating onto a packaging material comprising nitrocellulose (column 2, lines 20-34).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have substituted nitrocellulose as a polymer into the teachings of polymers taught by Niira since Neumann discloses the same use of the polymer composition.

Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Niira et al. (US Patent 4,938,958) in view of Lindgren et al. (US Patent 5,603,997).

The teachings of Niira are discussed above and applied in the same manner.

Niira does not disclose the hydrophobic of the zeolite coating.

With regard to the hydrophobicity of the zeolite-coating compound, it is within the level of skill in the art to prepare a hydrophobic coating composition. Also the application and use of such coatings are known in the art as seen in Lindgren et al (Abstract).

It would have been obvious to a person of ordinary skill in the art to utilize a hydrophobic coating since, the art of food packaging preparation hydrophobic metallic



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zeolite compositions are used to repel water and reduce mildew on the resulting packaging material (column 5, lines 13 - 47).

**Conclusion**

No claims are allowable. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa S. Mercier whose telephone number is (571) 272-9039. The examiner can normally be reached on 7:30am-4pm Mon through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward can be reached on (571) 272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



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